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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,248	11/28/2003	Richard Phillips		1635

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EXAMINER

JENKINS, DANIEL J

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,248

Applicant(s)

PHILLIPS ET AL.

Examiner

Daniel J. Jenkins

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The Examiner has carefully considered Applicant's Response of 6/23/05. The Examiner does not find Applicant's Arguments persuasive. In particular, Applicant has argued against the primary reference without consideration of the secondary reference to cure the admitted deficiencies of the primary reference. Additionally, Applicant has argued against the secondary reference for teachings other than for what the secondary reference was used for by the Examiner in curing deficiencies of the primary reference. Both references must be considered for the combined teaching. The Examiner finds that the secondary references teach the same lubricant and the same liquid phase former. The Examiner is thus strong in his position that the claimed limitations are met. Furthermore, the Examiner finds that the operation of the process with the same materials with overlapping parameters would meet the conditions of density as claimed by Applicant, as only overcome by a showing by the Applicant that such said conditions would not be met. The Applicant is aware that the PTO is unable to perform such analysis, thus the burden is appropriately passed to the Applicant to show otherwise. The Examiner affirms his position that the restriction requirement is proper. The Examiner has made a restriction based upon guidelines established by the PTO to reduce the burden upon the Examiner to examine multiple inventions. The Examiner has asserted that the product could be made by a materially different process. No showing has been provided to counter this argument as to why the stated different process could not be used to form said product.

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2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill in view of Ozaki et al.

Hill discloses the invention substantially as claimed. Hill discloses a process comprising:

mixing a ferrous metal powder (col. 2, line 54) with a lubricant (col. 3, lines 52-62) to form a mixture;

compacting the mixture at a pressure of 10-40 tons/sq.in.; and

heating the compacted mixture at a temperature of 1850-2400oF to liquid phase sinter the compact to form a sintered metal body (col. 3, line 63-col. 4, line 10).

However, Hill does not disclose lauric acid as a member of the lubricant, but discloses that conventional lubricants can be used in the invention (col. 3, lines 56-57).

Ozaki et al. teaches that the lubricant can include lauric acid (col. 5, lines 3-4) in the same field of invention for the purpose improving the flowability of the mixture.

Ozaki et al. further teaches that Ni and B powders can be added to iron based powder mixtures to form desired alloying effects of these known alloy components.

It would have been obvious to one having ordinary skill in the art to use the lubricant of Ozaki et al. which includes lauric acid in the invention of Hill in order to improve the flowability of the mixture, and to add Ni and/or B powders to improve the alloy characteristics of the formed iron based material.

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Hill discloses processing parameters of pressure and temperature that significantly overlap those as claimed, establishing a prima facie case of obviousness (see MPEP 2131.03).

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill in view of Luk et al.

Hill discloses the invention substantially as claimed. Hill discloses a process comprising:

mixing a ferrous metal powder (col. 2, line 54) with a lubricant (col. 3, lines 52-62) to form a mixture;

compacting the mixture at a pressure of 10-40 tons/sq.in.; and

heating the compacted mixture at a temperature of 1850-2400oF to liquid phase sinter (col. 3, line 11) the compact to form a sintered metal body (col. 3, line 63-col. 4, line 10).

However, Hill does not disclose lauric acid as a member of the lubricant, but discloses that conventional lubricants can be used in the invention (col. 3, lines 56-57).

Luk et al. teaches that the mixture can include lauric acid (col. 3, line 40) and graphite (col. 3, line 11) in the same field of invention for the purpose improving the flowability of the mixture.

The Examiner notes that the designation of the lauric acid as a lubricant component in the claims and that of Luk et al. to designate the lauric acid component as a binder component does not provide a patentable distinction.

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It would have been obvious to one having ordinary skill in the art to use the lubricant of Luk et al. which includes lauric acid and graphite in the invention of Hill in order to improve the flowability of the mixture.

Hill discloses processing parameters of pressure and temperature that significantly overlap those as claimed, establishing a prima facie case of obviousness (see MPEP 2131.03).


5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 571-272-1242. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1242. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J. Jenkins
Primary Examiner
Art Unit 1742

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